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Policies and Problems of the U. S. Navy

BY DAVID H. POPPER

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This is the second of two reports on the United States Navy. The first, published on April 1, 1941, describes the state of America's naval preparedness. Earlier issues of FOREIGN POLICY REPORTS have dealt with outlying American bases in both the Atlantic and Pacific.

The events of the spring of 1941 have brought the United States much closer to open participation in the European and Asiatic wars than at any time since their inception. While Nazi victories in the Balkans and North Africa have increased the anxiety of many Americans for their own ultimate safety, the rapidly rising rate of British shipping losses in the Atlantic may necessitate drastic action by this country if the flow of supplies to Britain is to be maintained. The Administration is becoming increasingly concerned with the question whether, despite the undoubted risk of a "shooting war," it should not retain its warships under its own control in all circumstances and participate in convoy duty to assist the hard-pressed British navy. At the same time, the bulk of American naval power remains stationed at Hawaii, far from the Atlantic blockade zones, where it constitutes a tacit if not fully effective barrier to Japan's southward advance in Asia. These developments indicate that—barring a sudden, unexpected German collapse—our naval forces are likely to be active in one or both oceans for a considerable period of time. If the European war is prolonged, they may be called upon to carry out blockade and convoy operations somewhat similar to those of 1917-18; if Britain is defeated, they may conceivably have to be prepared for a two-ocean defense of the Americas. In either case, it is important to consider the changing conditions of naval strategy and their effect on the United States.

IS SEA POWER ON THE WANE?

Germany's successes against Britain have raised to a new pitch the controversy over the question whether the influence of sea power on European

and world history has passed its zenith. In earlier centuries, sea power—compounded of strategic geographical location, superior naval forces, possession of focal points on maritime trade routes, and general technical pre-eminence—enabled Britain to exercise control over world events unparalleled in modern times.¹ But under contemporary conditions the scope of Britain's command of the sea has been considerably restricted.² During the first World War, despite British control of the ocean surface, Germany brought the British Isles close to starvation with newly perfected weapons of warfare and counterblockade: the mine, the torpedo, the submarine and, to some extent, the aircraft.³

With the aid of Allied fleets and large-scale military campaigns on the European continent, British sea power emerged successfully from its great test in 1918, only to be subjected to much heavier stress on the outbreak of war in 1939. Applying the lessons of the last conflict, Nazi Germany built strong flotillas of submarines and surface craft for sea raiding, including small, speedy motor-torpedo boats for use in the narrow waters of the Channel. It strained every nerve to attain self-sufficiency in such essentials as food, fuel and rubber so as to minimize the effects of a British blockade on the nation's economy.⁴ It strove, moreover, to restore the striking power of the offensive on land by obtaining unquestioned predominance in aircraft and mechanized equipment, in the hope of avoiding the long stalemate which proved Germany's undoing in 1918. While this aim remains in part

1. For a famous statement of this thesis, cf. Alfred Thayer Mahan, *The Influence of Sea Power upon History, 1660-1783* (Boston, Little Brown, 1890).

2. Arthur J. Marder, *The Anatomy of British Sea Power* (New York, Knopf, 1940), Chapters XIII, XXIV, XXVI, XXVII.

3. For some illustrations, cf. A. M. Low, *Mine and Counter-mine* (New York, Sheridan House, 1940). An excellent analysis of the changing nature of sea power is contained in Harold and Margaret Sprout, *Toward a New Order of Sea Power* (Princeton, Princeton University Press, 1940), pp. 1-46.

4. John C. deWilde, "Germany's Wartime Economy," *Foreign Policy Reports*, June 15, 1940.

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unfulfilled, German military victories on land have given the Reich control of most of Europe's Atlantic coast for the first time in history. It is now impossible to bottle up Nazi warcraft in the North Sea, as was finally done in the last war. Blockade and counterblockade, moreover, have become truly three-dimensional: Nazi aircraft not only attack shipping directly, but also guide submarines and surface raiders toward enemy convoys. Armed with quantitatively superior aviation, Germany has extended the scope of the campaign of attrition by destructive attacks on British ports and production facilities, jeopardizing the security of Britain as a base. It is reasonable to assume that, through the combination of sea and air power, Hitler now threatens British sea power—and hence Britain itself—even more gravely than Napoleon did in the early nineteenth century.

Like blockade operations, fleet tactics have also been profoundly modified by the striking effect of land planes cooperating with ships in waters within range of air stations. This was first demonstrated in the Norwegian campaign, when Britain's naval vessels were unable to prevent the transfer and supply of Nazi forces to Norway.⁵ At Dunkerque, however, sea power, in conjunction with local air superiority and poor visibility, accomplished the rescue of the defeated British army.⁶ Later, it helped to prevent the invasion of Britain and enabled the British to supply their forces in distant sectors. In the Mediterranean, the exploits of the British Mediterranean fleet during the winter of 1940-41 seem to contradict any blanket affirmation that sea power is ineffective in European waters. On the other hand, the success of the Germans in transporting a strong army to Libya under cover of their own bombers, while British vessels were in the eastern Mediterranean, demonstrates the limitations of British control of the middle sea.

Thus the conflict between advocates of sea power and air power cannot yet be settled.⁷ As in the case of other doctrinal disputes of this sort, extreme views tend to cancel out, so that the issue becomes one of the proportion in which the various elements of strength are to be utilized and the func-

tions they are to serve. Pending more conclusive tests, it can only be said that the efficacy of surface naval forces has been sharply limited in the narrow waters around Europe—how sharply, it remains to be seen; and that the coordination of superior military power above, below and on the sea is now desirable if control of those waters is to be gained or held.

In any event, the great majority of British and American naval authorities still believe in the efficacy of sea power.⁸ Particularly in the United States it seems inevitable that even greater reliance than in the past will be placed on modern naval strength as the primary element in national defense. A British victory won with American aid would be considered a demonstration of the continuing value of large fleets. A British defeat would give Great Germany unrestricted access to the open seas, from the Atlantic to the Indian Ocean, and would doubtless lead to further acceleration of naval construction here. While Britain's downfall would be taken to symbolize the end of naval dominance in Europe's narrow waters, it would not necessarily alter authoritative American views on United States naval policy. Strategists in this country have already pointed out that Britain is today hampered by the disadvantages of both a continental country, because it can be successfully attacked by aircraft; and an insular country, because it is vitally dependent on overseas sources for great quantities of food and raw materials. The United States, by contrast, possesses in large degree the advantages of both insular security and continental economy: it is still far beyond the operating radius of shore-based aircraft in Europe, and is much more nearly self-sufficient than any other single power.⁹ Where Britain's security as a base has been destroyed, largely by air power, that of the United States remains for the time being unhampered.¹⁰ It is officially asserted, however, that this unique status cannot be retained without a fleet capable of dominating the approaches to the Western Hemisphere.¹¹ Should Britain succumb, therefore, a new naval rivalry would probably develop between the three great areas—Europe, America and East Asia—which command facilities for building "blue water" fleets designed

5. Cf. Winston Churchill's statements on Norway, April 11 and May 8, 1940, in his collection of speeches entitled *Blood, Sweat, and Tears* (New York, Putnam's, 1941), pp. 249-72. It can be argued that, under bolder and more effective naval leadership, the British fleet could have done more to hamper the German invasion forces.

6. For an excellent summary of the effect of air power on sea power, cf. Hanson W. Baldwin, "The Naval Defense of America," *Harpers* (New York), April 1941, pp. 449-52.

7. For the view of adherents of the sea power thesis, cf. Commander William A. Read, "Sea Power and Air Power in 1940," *U.S. Naval Institute Proceedings* (Annapolis), April 1941, pp. 478-80; David W. Kendall, "American Sea Power—1941 and Beyond," *ibid.*, p. 474.

8. "The outstanding lesson of this war is that ships still command the sea and, to my mind, will forever, for fundamental reasons." Statement of Lord Chatfield, Admiral of the Fleet, *The Times* (London), January 22, 1941.

9. U.S., 76th Congress, 3d Session, *Senate Report No. 1615* (May 15, 1940), especially p. 18.

10. While scattered raids are possible at greater ranges, it is today difficult for any European power to carry out repeated mass attacks on a target as much as 500 miles from home.

11. Frank Knox, *The United States Navy in National Defense* (Washington, American Council on Public Affairs, 1941), pp. 2 ff.

to operate in the broad oceans. In the past, naval rivalry has been moderated by the community of British and American interests; in the future, it might be enhanced by clashing national ambitions in both oceans.

EVOLUTION OF U.S. NAVAL POLICY

The United States has not always based its naval policies on such broad considerations. Before 1890, when problems of domestic expansion overshadowed foreign affairs, the navy was viewed primarily as a mobile adjunct to coastal defense and an instrument for commerce raiding, traditional weapon of the weak against the strong on the high seas.¹² Soon afterward, however, this country began to play a far more active rôle in world affairs. Under the influence of Admiral Alfred Thayer Mahan, it began construction of a much stronger navy designed to enhance national strength by securing control of maritime communications and seeking out a decisive engagement with an enemy fleet in wartime.¹³

The impress of Mahan's thought is still apparent in American naval policy, whose fundamental purpose today is "to develop the Navy to a maximum in fighting strength and ability to control the sea in defense of the Nation and its interests."¹⁴ According to naval authorities, such a goal can only be attained by possession of a superior fleet able to prosecute a war at great distances from our shores and bring it to a successful conclusion. The alternative, it is stated, would be a hostile blockade of American coasts, interruption of vital American maritime commerce, seizure of this country's outlying possessions, and use of Western Hemisphere positions for sea and air attack on United States territory.¹⁵ In time, the country would then have no choice except to yield. But if the United States commands adequate naval power, it could subject the enemy to similar pressure, particularly if the enemy fleet can be defeated in battle.¹⁶ It is contended that this country's industrial resources and its invulnerability to air attack from overseas place it in a position to become the preponderant sea power of the world.¹⁷

12. Harold and Margaret Sprout, *The Rise of American Naval Power* (Princeton, Princeton University Press, 1939), Chapters II, 12.

13. Cf. George T. Davis, *A Navy Second to None* (New York, Harcourt Brace, 1940), pp. 37-149; *Mahan on Naval Warfare*, edited by Allen Westcott (Boston, Little, Brown, 1941).

14. For complete text of the Navy Department's policy statement, cf. Navy Department, *Press Release*, September 15, 1940; *The New York Times*, September 15, 1940.

15. Cf. statement of Admiral Leahy, U.S., 75th Congress, 3d session, *Hearings of the House Naval Affairs Committee on H.R. 9218 to Establish the Composition of the United States Navy* (Washington, 1938), pp. 4 ff.

16. Cf. *Senate Report No. 1615*, cited.

The views of the Navy Department on the size of the fleet necessary for what may be termed aggressive defense of the country have undergone repeated changes as the position of the United States in world affairs has altered. During the decade preceding 1914, the standard considered adequate was that of a fleet second only to Britain's—an objective which involved a certain degree of naval competition with Germany.¹⁸ By 1916, however, official sanction had been given to the concept of a battle fleet equal to the strongest afloat. From then until 1940 this standard was maintained as a goal without essential change. Under the naval treaty structure effective between 1922 and 1936 it was linked with the principle of the 5-3 ratio vis-à-vis Japan. Measures for expansion of the Navy during this period were proposed largely on the ground that the treaty ratios must be maintained as a matter of national security, by matching the construction of other powers.¹⁹

Strategically, the Washington naval treaty of 1922 undoubtedly gave the United States the right to strength which should provide adequate defense against attack by any single naval power, for the lack of near-by enemy bases would place a hostile fleet at a great disadvantage in attempting to carry a war into American waters. Even the longest-range fleet is restricted by possible damage in combat and the necessity for repairs to a tactical radius of approximately 2,500 miles from its base, and operations would rarely be carried out much more than 2,000 miles away. The same factor, according to the public statements of naval officers, would virtually preclude the American fleet from undertaking successful aggressive action overseas without a far stronger naval establishment—in the case of Japan, perhaps two to three times that nation's forces.²⁰ What the so-called treaty navy secured for the United States was an area of predominance stretching from the Aleutian Islands through Midway to Samoa, thence to the Panama Canal, the Virgin Islands, and the coast of Maine.²¹ Within this zone American forces are reasonably free to operate and from it they might set forth to engage the enemy if he could be encountered. The pending development of naval air stations as far west as Guam indicates an extension of the waters subject

17. Captain William D. Puleston, "A Re-examination of Mahan's Concept of Sea Power," *U.S. Naval Institute Proceedings*, September 1940, pp. 1229-36.

18. Davis, *A Navy Second, To None*, cited, pp. 150-95.

19. U.S., 76th Congress, 3d Session, *Hearings of the House Naval Affairs Committee on H.R. 7665 and H.R. 8026, to Establish the Composition of the United States Navy*, etc. (Washington, 1940), p. 1721.

20. Cf. *Hearings of the House Naval Affairs Committee on H.R. 9218*, cited, p. 7.

21. *Ibid.*, pp. 12, 19.

to American naval patrol for purposes of information, while the construction of major and minor bases on the sites recently acquired from Britain effectively broadens the field of American supremacy in the Atlantic.

As long as Japan was considered our only potential maritime enemy, this situation was entirely satisfactory. But after conclusion of the Munich agreement in 1938, the gradual solidification of the Berlin-Rome-Tokyo entente created an undercurrent of uneasiness in naval quarters. War plans now envisaged a hostile coalition, not a single foe, and were drawn in anticipation of possible destruction of the British fleet. Against such a coalition operating in two oceans, it was believed that the Navy would give "a fair account" of itself in protecting the most vital American interests: security of the domestic coast, Hawaii, the Panama Canal and its approaches, and American coastal shipping.²² There could be no assurance, however, that the Navy would succeed in maintaining the supply line for vital raw materials, such as manganese, rubber and tin, or in safeguarding the integrity of the Western Hemisphere against overseas attack.²³ The 5-5-3 navy, in short, was considered adequate to prevent all but occasional enemy raids in the inner zone of American defenses, but not to force the conflict to a victorious conclusion by attacking the communications and fleet of the enemy.

Until the collapse of France, the prospect of a hostile coalition directed against this country was considered too remote to justify a demand for a two-ocean American navy. Official spokesmen contended that, for theoretically complete security (within human limits), "we should build to superiority over the strongest likely enemy coalition. Theoretically, again, we should build to maintain a 5 to 3 ratio in the Pacific and a 4 to 3 ratio in the Atlantic over the combined naval strengths of our possible enemies."²⁴ This ideal desideratum, involving a possible naval race against the rest of the world, was not seriously advocated even as late as April 1940. The very notion of a two-ocean force able to deal with every combination was termed "fantastic" by naval officers; and practical

considerations of cost, time and available building facilities were deemed to restrict the Navy to relatively small increases in strength over the next few years.²⁵

When German armies reached the Atlantic, however, these objections were suddenly swept away by a wave of anxiety in Washington. What had been held impossible now appeared to naval leaders to be a pressing necessity. The Navy undertook to "arm as rapidly as possible to meet our naval defense requirements simultaneously in both oceans against any possible combination of powers concerting against us."²⁶ By July 19, 1940 the country had been committed by Congress to the eventual construction of a number of warcraft believed sufficient to implement the two-ocean naval policy in the next few years.²⁷ If the program—probably the greatest single naval effort ever undertaken—is completed as scheduled, the United States may become indisputably the strongest naval power in the world.

NAVAL PROGRESS AND PROBLEMS

This prospect, however, still lies far in the future. For the present, the paramount necessity is to maintain existing units at the highest possible efficiency; keep abreast of new developments in naval warfare; accelerate still further the construction of our projected ships, planes and bases; and pursue the most effective organization and personnel policies. Positive steps which have been taken in some of these spheres to improve the Navy's readiness for immediate action have been described in earlier issues of these REPORTS.²⁸ Although it is becoming more and more difficult to secure detailed information, a number of cases may be cited illustrating the problem of providing an efficient and effective defense.

While research and experimentation are continuous in the Navy, they can never replace battle experience as a guide to improved naval technique. In our own as in other fleets, maneuvers are made as realistic as possible: radio-controlled planes, for example, are shot down from the sky, bombers attack armored target boats, and one American battleship has actually fired upon another in order

22. This inner zone of crucial importance is the first concern of the Navy. Cf. Admiral Leahy, U.S., 76th Congress, 1st session, *Hearings of the House Naval Affairs Committee on H.R. 2880, to Authorize the Secretary of the Navy to Proceed with the Construction of Certain Public Works* (Washington, 1939), p. 52; Admiral Stark, *Hearings of the House Naval Affairs Committee on H.R. 7665 and H.R. 8026*, cited, p. 1786.

23. Admiral Stark, U.S., 76th Congress, 3d session, *Hearings of the Senate Naval Affairs Committee on H.R. 8026, Construction of Certain Naval Vessels* (Washington, 1940), p. 23.

24. Secretary of the Navy Edison, *Hearings of the House Naval Affairs Committee on H.R. 7665 and H.R. 8026*, cited, p. 2067.

25. Admiral Stark, *Hearings of the Senate Naval Affairs Committee on H.R. 8026*, cited, p. 20; cf. also Admiral Taussig, p. 197.

26. Lewis Compton, Acting Secretary, *Annual Report of the Secretary of the Navy for the Fiscal Year 1940* (Washington, 1940), p. 2.

27. Cf. D. H. Pöpper, "America's Naval Preparedness," *Foreign Policy Reports*, April 1, 1941, p. 15 for details.

28. *Ibid.*; A. R. Elliott, "U.S. Strategic Bases in the Atlantic," *Foreign Policy Reports*, January 15, 1941; *idem*, "U.S. Defense Outposts in the Pacific," *ibid.*, March 15, 1941.

to test the construction of its gun turrets.^{28a} The deductions drawn from observation of actual combat, however, furnish the keenest stimulus to development and change. Thus, the torpedoing of the British battleship *Royal Oak* at Scapa Flow served to accelerate the Navy's preparations to guard vital harbors with nets and booms in time of war. The employment of the magnetic mine has caused all combatant vessels and many auxiliaries to be fitted with degaussing equipment. A new impetus has been given to provision of facilities for mine laying, sweeping and defense. Such long-term projects as experimentation on high-pressure steam propulsion machinery, Diesel engines, armor-piercing projectiles, naval communications equipment, and apparatus to detect submarines and aircraft are directly affected by disclosure of combat experience.²⁹

SHIPS VERSUS AIRCRAFT

Some of the most striking changes in naval operations have been necessitated by the encounters between belligerent ships and planes overseas, as a result of which the characteristics and functions of both weapons have been modified. Naval planes are being equipped with heavier armament, armor to protect personnel, and self-sealing fuel tanks. While little material has been published regarding the precise tactical use of the expanded naval air force, it appears that the relatively successful employment of aircraft carriers by the British has encouraged the Navy to build up its qualitatively outstanding carrier force with all convenient speed. The number of carrier-based squadrons will be greatly expanded—not only for the twelve additional aircraft carriers projected for the two-ocean navy, but also for merchant vessels converted into auxiliary carriers.^{29a} Long-range patrol planes are also to be acquired in large numbers. Both types of aircraft are pre-eminently suited for the aggressive defense of a nation situated at great distances from its potential enemies. The carriers may be utilized to patrol and protect trade routes, or with cruisers as a "carrier striking force"—an American tactical development—with great possibilities for carrying out distant surprise raids against enemy concentrations. Provided adequate outlying bases and tenders are available, the patrol bombers may serve not only as long-range scouts but also, with carrier-based planes and heavy Army

bombers, as a highly mobile first line of aerial defense against any approach by an enemy to the Western Hemisphere.³⁰

Almost invariably, however, American naval authorities regard air power as an important but auxiliary arm of sea power. Officers still insist that only a fleet, with capital ships as its core, can guarantee the control of sea communications. They point out that every other naval power, including Germany which has air superiority in Europe, is engaged in the construction of battleships against which only capital ships of our own afford security.³¹ This view is not incompatible with the realization that, lacking adequate, fully coordinated air support and protection for crews aboard ship, the influence of naval power must be largely limited to areas far from shore and from the focal points of maritime travel.³² With such support and protection, surface naval vessels are able to operate, though at a risk, close to an enemy coast.

Hence much energy is now being devoted to increasing the defenses of crews and vessels against air attack. Unpreparedness on this score admittedly represented a miscalculation by the naval command.³³ Experience has demonstrated that the greatest damage from the air is likely to be sustained less from direct hits which cause sinking than from fragments and splinters which disable personnel and devastate the upper works and control stations of ships; and from the underwater impact of "near misses" against the submerged, unarmored portions of the hull. New vessels now under construction have been redesigned as much as possible to take these factors into account. The battleship *North Carolina*, commissioned April 9, 1941 as the first addition to the capital-ship strength of the fleet since 1923, is distinguished by the absence of all but an essential minimum of superstructure; its vital topside points are armored; and a battery of 20 double-purpose 5-inch guns can throw a heavy volume of fire against sea or air targets.³⁴ Even our newest destroyers, a class of ships whose lack of armor makes them peculiarly vulnerable to aerial attack, are being increased in weight to 2,100 tons to incorporate additional protective features. Ultimately

28a. U.S., 77th Congress, 1st session, *Hearings before the House Appropriations Subcommittee on the Navy Department Appropriation Bill for 1942* (Washington, 1941), pp. 245, 268.

29. *Ibid.*, pp. 240, 257-59; 261 ff, 330-31.

29a. Hanson W. Baldwin, "U.S. Air Power," *Fortune* (New York), March 1941, pp. 75 ff, 231. As a beginning, conversion of the freighter *Mormacmail* has been taken in hand. *The New York Times*, April 13, 1941.

30. Baldwin, "U.S. Air Power," cited. For the time being, procurement of these types is being hampered because of the priority of shipments for Britain.

31. Cf., for example, Admiral Robinson, U.S., 76th Congress, 3d session, *Hearings of the Senate Appropriations Subcommittee on the Navy Department Appropriation Bill for 1941* (Washington, 1940), pp. 74-76.

32. Cf. press conference statements of former Secretary of the Navy Charles Edison, *The New York Times*, May 2, 1940.

33. Secretary of the Navy Frank Knox and Fletcher Pratt, "Ships, Men and Bases," *Saturday Evening Post*, April 5, 1941, pp. 16 ff, 76.

34. *The New York Times*, April 10, 1941.

all armored ships, at least, will provide still greater protection to personnel and equipment.³⁵

Meanwhile, however, the Navy has been given authority to spend \$300,000,000 for major alterations to ships already in service, in order to increase their anti-aircraft protection, both active and passive.³⁶ During the next five years, work will be undertaken on all the battleships, aircraft carriers and cruisers now with the fleet—a total of 58 vessels.³⁷ Under the same legislation, the defenses of 103 auxiliary vessels will also be improved. The program must be carried out gradually, not only to maintain fleet strength at a high level at all times, but because of the bottleneck in production of new types of ordnance with which the vessels will be armed. The principal weapon of active defense will be the power-operated 5-inch gun, the world's longest-range anti-aircraft piece (31,000 feet), adapted for fire against either surface or air targets and now the standard destroyer gun of the Navy. For dive-bombers and low-flying aircraft the Navy has developed the heavy, multiple-barrel 1.1-inch machine gun, firing a one-pound explosive projectile at an extremely rapid rate. Neither of these weapons is yet available in sufficient quantity, and there is also a shortage of the complex anti-aircraft fire control apparatus. As the matériel is procured, it will be used to replace and strengthen existing anti-aircraft armament.³⁸ For protection of gun crews and other exposed personnel on topsides, moreover, steel shields will be installed and special lookout posts erected. The increase of weight on upper works will in some cases necessitate the redistribution or addition of ballast to retain stability. This, like the installation of blisters beneath the water line, affects performance. Thus the projected alterations involve difficult questions of design and can scarcely duplicate the results in vessels planned from the outset with modern air defense provisions in view.³⁹

In general, modernization of any kind may improve the serviceability of existing craft, but it is seldom as effective as completely new design. When alterations require a lengthy period of time,

35. Cf. *Christian Science Monitor* (Boston), May 7, 1940.

36. Public No. 1, 77th Congress (H.R. 1053). The sum of \$8,360,000 had already been appropriated for this purpose in the First Supplemental National Defense Act, 1941.

37. Navy Department statement, U.S., 77th Congress, 1st session, *Hearings of the House Naval Affairs Committee on H.R. 1053, to Authorize Major Alterations to Certain Naval Vessels* (Washington, 1941), p. 7.

38. For fuller details, cf. *House and Senate Naval Affairs Committee Hearings on H.R. 1053*, cited.

39. Cf. *Army and Navy Journal*, December 7, 1940, p. 353. In particular, although unprotected destroyers are highly vulnerable to air attack, they are not included in the anti-aircraft defense program undertaken in January 1941 because of weight limitations. Serious problems also arise in connection with the alterations to aircraft carriers.

moreover, they must now be deferred both because ships cannot be withdrawn from service at this critical juncture in the nation's affairs and because of the crowded state of both navy and private yards. As illustrations, it may be noted that despite the availability of appropriations for the purpose, modernization of the aircraft carriers *Lexington* and *Saratoga*, elevation of guns on the three old battleships of the Atlantic-Fleet; and the re-engineing of three submarines must be postponed.⁴⁰

THE PROBLEM OF CONSTRUCTION

New construction itself is affected by somewhat similar factors. Creation of the two-ocean navy by the scheduled date of 1947 will strain to the utmost the country's capacity to turn out naval equipment. It is true that naval shipbuilding has proceeded in what would normally be adequate volume since 1933, but little margin was available for the demands made in the emergency defense acts passed in 1940.⁴¹ As a result of supplementary appropriations during the present fiscal year, an enormous backlog has been built up of ships for which contracts have been awarded but construction facilities are lacking. The evolution of the situation since January 1940 may be shown as follows:^{41a}

	Under con- struction (ordered) Jan. 1, 1940 ¹	Con- tracted for during 1940	Keels laid, Jan. 1- Dec. 15, 1940	Scheduled for com- pletion, 1941
Battleships	8 ²	9	3	2
Aircraft carriers	2	11
Cruisers, Heavy	14	7
Cruisers, Light	6	36		
Destroyers	31	193	9	15
Submarines	15	71	9	3
TOTAL	62	334	28	20

¹Twenty-four combatant ships were completed during 1940.

²Of which only 5 keels had been laid January 1, 1940.

The Navy's success in dealing expeditiously with this mass of prospective shipbuilding will depend

40. *Hearings of the House Appropriations Subcommittee on the Navy Department Appropriation Bill for 1942*, cited, pp. 651 ff.

41. Funds were appropriated for new ships as follows (data for fiscal years ended June 30):

Year	Number of ships
1934	32
1935	24
1936	24
1937	20
1938	14
1939	37
1940	23
1941 regular	24
supplementary	268

U.S., 77th Congress, 1st session, *Hearings of the House Naval Affairs Committee on H.R. 1437, Authorizing Additional Shipbuilding and Ordnance Manufacturing Facilities* (No. 2), January 15, 1941.

in large part on its ability to overcome serious procedural faults which in the past have increased costs and delayed construction. The outlay for building all types of major combatant vessels has risen sharply and steadily since the end of the last war. In the case of battleships, for example, the 32,600-ton *Maryland*, constructed at high World War prices, cost \$27,000,000, while the 35,000- and 45,000-ton vessels now under construction are to cost \$70,000,000 to over \$100,000,000. At the same time the price of heavy cruisers has increased from some \$12,000,000 in 1932 to \$40,000,000 under present estimates; that of aircraft carriers from \$19,000,000 to over \$66,000,000 since 1933; that of destroyers from \$3,500,000 in 1935 (1,500 tons) to \$9,250,000 (1,700 tons) in 1940.⁴²

There is no doubt that a considerable portion of the rise may be attributed to trends which have been operative over a long period of time. In each of the classes mentioned, the size of the individual vessel has grown appreciably since the expiration of the naval treaties. Design and equipment are constantly becoming more complex; the horsepower delivered by ships' engines is being steadily increased; the outlay for machinery has risen; the use of specialized materials adds to costs; and wages have shown an upward tendency.⁴³ More recently, the demand for speed and volume of construction at any price has led to payment of overtime and extra shift wages, use of less efficient labor, bidding up of materials prices, and other more costly practices.⁴⁴ Yet it is by no means certain that these factors account adequately for the entire increase, particularly when a comparison is made with shipbuilding costs in other nations. The new 35,000-ton British battleship *King George V*, which conveyed Lord Halifax to the United States in January 1941, was constructed at an estimated expenditure of only \$28,000,000; and British de-

stroyers are said to cost only \$2,000,000.⁴⁵ It has been charged that, through a quasi-monopoly, a few enterprises have been able to control private naval construction in this country and to raise prices; that naval officials have had insufficient concern for economy; and that practices at government yards are inefficient, although their costs rank somewhat below those of private constructors.⁴⁶ Whatever the truth of these accusations, they deserve either full refutation by the Navy Department or investigation by Congress.

During an emergency, costs are secondary, provided first-rate fighting ships are produced in a minimum of time. In the past there have been indications that neither the quality nor the speed of construction was always satisfactory. Despite the difficulty of obtaining complete information regarding construction details, it has been revealed that most of the early 10,000-ton, 8-inch-gun cruisers were inadequately armored, rolled excessively, required replacement of reduction gears, and were equipped with defective sternposts due to faulty design; that two new aircraft carriers were subject to severe vibration because of faulty reduction gears; that 20 new destroyers required extensive alteration because they possessed an insufficient margin of stability; and that submarines have had difficulties with their Diesel engines.⁴⁷ Such experiences should not be magnified out of proportion; in the search for more effective ships they occur from time to time in all navies. It is generally conceded that the vessels now going into service in the United States are excellent in quality. What was disturbing was the juxtaposition of these faults with the formerly slow pace of American naval construction generally, often because of excessively numerous changes in plan made while work was proceeding—especially in ships of new and improved design.⁴⁸ In construction schedules as of March 1, 1940, the building period for battleships averaged 52 months; for air-

41a. *Hearings of the House Naval Affairs Committee on H.R. 7665 and H.R. 8026*, cited, p. 2070; *Congressional Record*, January 16, 1941, p. A129; *ibid.*, March 8, 1941, p. 2085; U.S. Navy Department, *Vessels Under Construction, U.S. Navy, as of December 1, 1940* (Washington, mimeographed); *Hearings of the House Appropriations Subcommittee on the Navy Department Bill for 1942*, cited, pp. 3, 72.

42. Cf. *Congressional Record*, January 16, 1941, p. A129; U.S., Navy Department, Bureau of Supplies and Accounts, *Naval Expenditures, 1938* (Washington, 1939), pp. 2 ff.

43. Cf. *Memorandum of the Bureau of Supplies and Accounts, to the Secretary of the Navy* (Navy Department, mimeographed, September 21, 1939).

44. One navy yard manager, making rough estimates which may overrate somewhat the increases, calculates that naval shipbuilding costs have risen 39 per cent, apparently since the outbreak of the war. For breakdown, cf. *Hearings of the House Appropriations Subcommittee on the Navy Department Appropriation Bill for 1942*, cited, p. 245. To some extent these expenses should be offset by savings on duplicated parts.

45. *The New York Times*, February 1, 1941.

46. Donald W. Mitchell, "What Our Warships Cost," *The Nation* (New York), September 23, 1939; *idem*, "What's Wrong With Our Navy?" *New Republic*, September 30, 1940, pp. 437-39; M. M. Fagen and Benjamin Post, "The High Cost of Ships," *ibid.*, January 6, 1941, pp. 10-12.

47. Cf. data of Donald W. Mitchell, in *Hearings before the Senate Naval Affairs Committee on H.R. 8026*, cited, p. 279; Navy Department statements, *Hearings of the House Naval Affairs Committee on H.R. 7665 and H.R. 8026*, cited, pp. 2033 ff; *Hearings of the Senate Appropriations Subcommittee on the Navy Department Appropriation Bill for 1941*, cited, pp. 64-66, 78-79.

48. Some of the *Mahan* class of destroyers, which were built from 1934 to 1936, were subjected to almost 200 changes in design during construction, many of them costly and time-consuming. In 1940 the number had been reduced to from 20 to 50 changes on destroyers. *The New York Times*, July 21, 1940; *Hearings of the House Naval Affairs Committee on H.R. 7665 and H.R. 8026*, cited, p. 1896.

craft carriers, 37; for light cruisers, 38; for submarines, 28; and destroyers, 24 to 36.⁴⁹ The responsibility for this situation lay within the Navy Department itself, where it has been substantially improved by certain organizational changes.⁵⁰

As the stream of new orders poured forth during 1940, numerous bottlenecks at once became apparent. Perhaps most serious of all was the lack of facilities for heavy armor production, which were barely sufficient for the completion of two capital ships a year at the moment the two-ocean navy was authorized. Since that time, the steel companies engaged in such production have received contracts for plant expansion designed to quadruple capacity.⁵¹ By similar methods, ship-building ways, special tools, facilities for the manufacture of turbines, reduction gears, other machinery, fire control apparatus and ordnance have been provided.⁵²

Through energetic action in many fields during the last year the lag in construction schedules has been eliminated and the pace in shipyards markedly accelerated, regardless of cost. Instead of taking the time for competitive bidding, the Navy now negotiates contracts for ships, filling all yards to capacity.⁵³ Most of the new vessels are being built in numbers according to standard and tried plans, rather than the newest designs, although experimentation is continued by constantly keeping at least one prototype in each category in the planning or construction stage.⁵⁴ Additional labor and facilities are being drawn into production. The first two 35,000-ton battleships are being hastened to completion months before schedule, while others are being laid down as quickly as possible.⁵⁵ The time necessary for building destroyers has been lowered to 18 months, and it is hoped to reduce this figure by an additional three months.⁵⁶ By

projecting 40 more destroyers and ordering a number of 1,630-ton ships of current design for anti-submarine convoy work instead of 2,100-ton models (which have better protection against air attack), it has been possible to increase the number of destroyers to be delivered in the three years ending December 31, 1943 from 100 to 155.⁵⁷ On the basis of available information, it may be concluded that ships of all types now under construction will be commissioned from four to six months ahead of the original—all too leisurely—schedules. It is generally agreed that still more progress can and will be made.

THE PROBLEM OF DEPARTMENT ORGANIZATION

While gigantic naval expansion plans have been formulated and unprecedented sums allocated for rapid output, relatively little has been done to meet criticisms that the organization of the Navy Department itself is ill adapted to modern crisis conditions. Unlike the Army, the Navy is not directed by a general staff which can take the lead in drawing up war plans, recommending policies and assuring efficient administration. Repeated attempts have been made to induce Congress to sanction such a body, particularly during the Theodore Roosevelt and Taft administrations. But the legislature always feared that professional naval officers endowed with general staff powers would assume the function of determining national policy and might curb pork-barrel practices in ship construction and repair, and shore establishments.⁵⁸ As a substitute, the Navy Department in 1900 set up a General Board of officers serving as a consultative body only, without legislative sanction. In 1915, moreover, Congress created the post of Chief of Naval Operations, its occupant to be charged, under direction of the Secretary, with the operation of the fleet and the preparation of plans for war.⁵⁹

Critics nevertheless regard these arrangements as

49. U.S. Naval Institute Proceedings, May 1940, p. 731. Detailed data on ship construction schedules are now considered confidential.

50. Cf. p. 46.

51. U.S., 77th Congress, 1st session, *Hearings of the House Appropriations Subcommittee on the Fourth Supplemental National Defense Appropriation Bill for 1941* (Washington, 1941), p. 358. Annual production will thus be brought from 20,000 to 84,000 tons annually, *Hearings before the House Appropriations Subcommittee on the Navy Department Appropriation Bill for 1942*, cited, p. 319.

52. For a brief survey, cf. U.S., 76th Congress, 3d session, *Supplemental Hearings of the House Appropriations Subcommittee on Senate Amendments to the Navy Department Appropriation Bill, 1941* (Washington, 1940), pp. 23 ff.

53. Under Public No. 671, 76th Congress, approved June 28, 1940. Limitations on profits, except for general excess profits taxes, were removed in the Second Revenue Act of 1940, approved October 8, 1940.

54. U.S., 77th Congress, 1st session, *Hearings of the Senate Appropriations Subcommittee on the Navy Department Appropriation Bill for 1942* (Washington, 1941), p. 16; *The New York Times*, July 21, 1940.

55. The keel of the *North Carolina* was laid October 27, 1937; it was placed in commission April 9, 1941, 4½ months before schedule, although it was not yet fully completed. Its sister ship, the *Washington*, is to be commissioned May 15, 1941, six months earlier than originally planned. Navy Department, Press Release, January 12, 1941; *New York Herald Tribune*, February 20, 1941.

56. *Congressional Record*, March 8, 1941, p. 2085.

57. *Hearings of the House Appropriations Subcommittee on the Fourth Supplemental National Defense Appropriation Bill for 1941*, cited, p. 340. But only 15 will be finished in 1941, and only 45 in 1942.

58. Cf. Sprout, *The Rise of American Naval Power*, cited, pp. 274-76, 291-92. In view of the restricted part played by Congress in shaping naval policy today, these objections may now carry less weight.

59. *Ibid.*, p. 315; U.S., 75th Congress, 1st session, "The United States Navy," *Senate Document No. 35* (Washington, 1937), pp. 6-9.

unsatisfactory. Their inadequacy, they charge is heightened by a system of administrative bureaus set up in 1842 and since retained with little change. Until June 1940 there were eight: the bureaus of navigation (dealing principally with personnel matters), ordnance, engineering, aeronautics, construction and repair, yards and docks, supplies and accounts, and medicine and surgery; as well as a separate office of the Judge Advocate General in charge of legal affairs.⁶⁰ Each is responsible only to the Secretary of the Navy, a civilian who usually lacks the technical competence necessary to coordinate their activities effectively. Each is headed by an officer appointed by the President; although the Chief of Naval Operations has higher rank, he has no authority to exercise command over the bureau chiefs. Under the circumstances, the administrative divisions are said to have become entrenched, independent hierarchies wrangling for privilege and steadfastly resisting change.⁶¹ It has been contended that efficiency and economy have suffered because of overlapping functions, division of responsibility and conflicts of jurisdiction among the bureaus. For instance, armor for ships is purchased by both the Bureau of Ships and the Bureau of Ordnance; jurisdiction over naval aviation training is shared by the Bureaus of Navigation and Aeronautics and the commandants of the naval districts concerned; and the Bureau of Aeronautics must reach agreement with the Bureau of Yards and Docks on the planning and development of aviation installations and with the Bureau of Ordnance on aircraft armament.⁶²

Since the last war, when organizational difficulties became clearly apparent, a number of attempts have been made by groups, both inside the Navy Department and out, to integrate the various bureaus and offices in a well-defined and effective chain of command.⁶³ In large part these efforts have been unsuccessful, not only because of opposition from within the Navy but also because of fears that centralized authority delegated to the Chief of Naval Operations would reduce civilian control exercised through the Secretary.⁶⁴ A

notable step was taken to improve conditions in June 1940, when the Bureau of Construction and Repair (responsible for design and seaworthiness of ships) and the Bureau of Engineering (charged with the development, installation and operation of machinery) were formally consolidated in a Bureau of Ships.⁶⁵ The union appears to have done much to eliminate costly inefficiency, error and delay in shipbuilding.⁶⁶ Important though they are, these changes did not fundamentally alter the administrative system of the Navy. Under present conditions, the smooth execution of the pending expansion program and of preparations for combat will constitute striking testimony to the ability of the individuals in charge. Naval spokesmen assert that the Department's administrative system is now efficiently operated through the *de facto* authority of the Chief of Naval Operations and the coordination of Bureau activities in daily consultative councils under the Secretary.

Closely linked with the problem of reorganization is the question of altering existing practice in the training and assignment of naval officers. In the four years spent at Annapolis the prospective officer of the line—that is, of the fighting navy—can be taught only the broad essentials of his profession. He cannot become a specialist in the technical aspects of the construction and operation of the various fleet components. Nor, despite some subsequent assignments for post-graduate education, is he ordinarily permitted to concentrate thereafter in one particular branch of the service. It is a traditional Navy thesis that preparation for command can best be gained by rotating the officer in variegated types of sea and shore duty, so that he is constantly shifted from one to another with little regard for his fitness or previous experience.⁶⁷ Some modification of this doctrine is recognized in the existence of so-called staff corps in such non-combat spheres as medicine, civil engineering and construction. There have been charges, nevertheless, that the officers of the line dominate naval administration and reserve high posts in design, construction and engineering for themselves, despite the need for highly trained

60. *Ibid.*, pp. 9-18.

61. Admiral Yates Stirling, "Bureaucracy Rules the Waves," *Current History*, March 1940, pp. 30-32.

62. Cf. *Army and Navy Journal*, October 5, 1940, p. 122; Mitchell, "What's Wrong With Our Navy?" cited; F. Russell Bichowsky, *Is the Navy Ready?* (New York, Vanguard, 1935).

63. Cf. Rear Admiral J. K. Taussig, "An Organization for the Navy Department," *U.S. Naval Institute Proceedings*, January 1940, pp. 52-57.

64. This view has been expressed by President Roosevelt. For his opinions and the widely varying suggestions of high naval officers, cf. *Army and Navy Journal*, January 27, 1940, pp. 469, 471, 474, 478-90. The extent of the positive control exercised by the Secretary of the Navy in recent years seems to have fluctuated considerably.

65. Public No. 644, 76th Congress, approved June 20, 1940.

66. Cf. testimony of naval officials, U.S., 76th Congress, 3d session, *Hearings of the Senate Naval Affairs Committee on Reorganization of the Navy Department and Transfer of Construction Corps to the Line* (Washington 1940), pp. 5-29. The current organization of the Navy Department is illustrated in a chart it has prepared under date of December 21, 1940.

67. As a result, instructors at Annapolis are predominantly line officers serving a period of shore duty. While they are presumably chosen because of their desirable qualifications, it is doubtful that all of them possess an aptitude for teaching, nor are they given the years necessary to develop it. The Navy defends the existing arrangement on the ground that it inculcates naval tradition and loyalties, and the habit of discipline.

specialists and efficient industrial management in these branches of the service. Certain observers believe, moreover, that despite the high technical competence of American naval officers, their generally narrow loyalties and background should be broadened by post-graduate education in the social sciences and by admitting greater numbers of qualified civilians into the officer corps.⁶⁸ A complicating factor in the naval officer situation is the widespread professional dissatisfaction with the selection system for promotions, which has rather ruthlessly retired officers not chosen for higher posts while they were still in the prime of life. Although the effect on morale is detrimental, proponents of the existing arrangement point out that it represents the only method of keeping a channel for steady advancement open to the best qualified individuals.

PLANS AND OBJECTIVES

The existence of such controversies and problems should not be permitted to obscure the generally high standard of efficiency and competence which seems to prevail in the Navy as a whole. As a technical instrument it is generally conceded to be in excellent condition. It is in the formulation of objectives of national policy that differences of opinion arise.

According to the official interpretation, the two-ocean navy is being built to protect the Western Hemisphere in case of the destruction or capture of the British navy, whose domination in the eastern Atlantic has hitherto enabled us to concentrate our forces in the Pacific.⁶⁹ A victorious Axis, it is held, could threaten the United States with a two-ocean maritime war, successfully command the South Atlantic against our divided fleet, establish hostile bases in the Americas, and drive this country's essential foreign trade from the seas.⁷⁰ Under the circumstances, the United States would, it is asserted, suffer a lowered standard of living, still further reduced by the necessity for paying the crushing bill for huge land, sea and air forces over an indefinite period of time. According to naval authorities, these difficulties can only be avoided by maintaining control of the seas; if possible in conjunction with Britain. Construction of the two-ocean fleet is therefore said to be required as part of an American endeavor to uphold

its sea power in the face of combined Axis building capacity seven times greater than ours, and of Axis navies already quantitatively superior to our own.⁷¹ Such an objective not only involves defense of the approaches to the entire hemisphere, but also the application of American naval pressure—if only implicitly, by the existence and disposition of naval forces—on the other side of both the Atlantic and Pacific. Should Britain survive, it would appear natural to use naval and air strength in support of a new Anglo-American hegemony in all quarters of the globe.

The Administration theory has been challenged on several counts. Isolation spokesmen question the wisdom of exerting American influence by armed force in the Old World, and would prefer to limit our military establishment to that necessary for hemisphere defense or defense against invasion of the United States. This task they consider relatively easy because of the extreme difficulties of transoceanic transport in the face of defensive sea and air power.⁷² Other critics decry what they regard as undue alarmism on the part of the Administration. In view of the size of our basic industries, they claim, it is by no means certain that the Axis, exhausted by war and the policing of turbulent peoples, could outbuild this country upon the seas.⁷³

Debate over the two-ocean naval policy seems somewhat academic, however, in view of the dan-

71. Comparative naval data as of January 1, 1941 are published by the Navy Department as follows:

NAVAL STRENGTHS	
ESTIMATED APPROXIMATE TOTAL COMBATANT TONNAGE BUILT	
United States	1,250,000
Germany, Italy	850,000
Germany, Italy, Japan	1,835,000
Germany, Italy, Japan, France	2,145,000

ESTIMATED COMPARATIVE STRENGTHS IN TYPES (does not include France)

	Jan. 1, 1941		Jan. 1, 1943	
	U.S.	Axis	U.S.	Axis
Battleships	15	20	18	28
Aircraft carriers	6	8	7	8
Cruisers	37	75	45	101
Destroyers	159	271	219	325
Submarines	105	284	133	500

Note.—France has as immediately effective units: 1 battleship, 1 aircraft carrier, 14 cruisers, 52 destroyers, 60 submarines. It is now reported that no new construction is contemplated. Source: *Hearings before the Senate Foreign Relations Committee on S. 275*, cited, pp. 179-80.

72. Testimony of Charles A. Lindbergh, *Hearings before the Senate Foreign Relations Committee on S. 275*, cited, Part 2, pp. 490 ff, 539-41; O. G. Villard, "A Primer of Invasion," *Christian Century* (Chicago), February 12, 1941.

73. Secretary Knox places the ratio at 7 to 1, assuming use of British yards; Professor Staley sets it at 4 to 1; Hanson W. Baldwin believes the United States might by extraordinary effort match the construction of a victorious Axis in the visible future. Cf. Eugene Staley, "The Myth of the Continents," *Foreign Affairs* (New York), April 1941, p. 488; Baldwin, "The Naval Defense of America," cited.

68. For a Navy rejoinder, cf. *Army and Navy Journal*, March 22, 1941, p. 779.

69. Cf. testimony of Secretary of the Navy Knox, U.S. 77th Congress, 1st session, *Hearings before the Senate Committee on Foreign Relations, on S. 275 to Promote the Defense of the United States* (Washington, 1941), Part I, pp. 177 ff.

70. Address of Secretary Knox before the Canadian Society of New York, Navy Department, *Press Release*, January 18, 1941.

ger of a war crisis in the United States this year. Any war in which the United States becomes involved today or tomorrow will be fought essentially with the existing navy. Only 2 battleships, 15 destroyers and 3 submarines are scheduled to join the fleet in 1941; and only 1 battleship, 1 aircraft carrier, 8 cruisers, 45 destroyers and 25 submarines in 1942⁷⁴—when the results of the 1940 appropriations will really begin to take shape. But it should by no means be assumed that the situation in a war in the immediate future would be hopeless, even if the British Isles had previously fallen. Even if the three Axis powers were to throw their entire capital ship strength into a campaign against us, the most authoritative unofficial computations indicate that they would at present enjoy only a numerical (and not qualitative) 5-3 predominance in battleships. This is not believed to be a sufficient margin of strength for fleet action against the Western Hemisphere.^{74a} Ship-by-ship comparisons indicate that the paper preponderance of the totalitarian fleets is largely illusory: first, because a physical combination between them is a virtual impossibility; second, because most of the Axis ships, unsuited for joint operations at best, have been designed not for blue-water campaigns but for short-range operations in specific localities; and third because a superiority of 2 or 3 to 1 would be necessary for a reasonable prospect of successful attack in Western Hemisphere waters.⁷⁵ In a hypothetical two-front war, the American fleet—itsself more powerful than its fascist opponents in either ocean—would be able by virtue of its central position to take the initiative in one ocean or to shift quickly from one to the other. American strategists would be confronted with a choice between merely attacking the maritime commerce of the enemy and awaiting his offensives, or striving to force fleet action in one ocean at a time.⁷⁶ As long as American morale held up, victory would remain possible, defeat extremely difficult.

Logically, however, it would seem appropriate to pursue two types of action to diminish the risks of a long and exhausting two-ocean war. Both are

being undertaken. In the first place, it is important to extend the bulwark of our outer naval defenses north and south by the acquisition of additional naval and air bases, particularly in the neighborhood of Brazil. So long as such activity is confined to the Western Hemisphere it arouses little dissent among the American public. Much more controversial is the question of utilizing footholds in the eastern Atlantic—in the Azores, the Cape Verde or Canary Islands, for instance, or even in West Africa—and in the western Pacific as far afield as Singapore or Australia. Such moves could be justified as measures of aggressive hemisphere defense. On the assumption that war is likely, they might be extremely important.

The second method of defense against a threatening Axis coalition is to grant all possible aid to Britain, primarily by sending overseas destroyers, cruisers, submarine chasers, patrol boats and long-range patrol bombers. Naval officers are understandably reluctant to destroy the balance of the fleet by a procedure of this sort, but they will of course subordinate their desires to the policy decisions of the Executive. In the long run, the only alternative to delivery of ships to Britain would appear to be direct American participation in convoy operations, a step which may be imminent and which would have the effect of permitting the United States to retain control of its ships under all circumstances. Whether ships are transferred or assigned to escort duty, effective action requires ever-greater acceleration of the construction of long-range planes, destroyers and smaller craft, and even merchant vessels—at the expense of the battleships, aircraft carriers and cruisers of a well-rounded fleet. There is some evidence that a start has been made in this direction, and further developments should be forthcoming.⁷⁷

Thus there is an inherent if temporary conflict between the two-ocean navy plan and the program for aid to Britain. The decision on the relative importance of the two objectives can only be made by officials in possession of all the facts, but it is arguable that the small-craft program might, if successful, obviate the need for maintaining a two-ocean navy indefinitely and at enormous cost.⁷⁸ Problems of this nature involve high policy and should receive adequate consideration in Washington by a coordinating and planning defense body set up for that purpose.

74. *Hearings before House Appropriations Subcommittee on Navy Department Appropriation Bill for 1942*, cited, p. 3.

74a. Cf. the carefully collected data of Hanson W. Baldwin, in *United We Stand!* (New York, Whittlesey House, 1941), pp. 170 ff, and appendices.

75. In the unlikely event that the entire British and French fleets were surrendered intact to Germany, superiority would be temporarily gained, but even then it would be difficult for the Nazis to use them for a considerable period of time.

76. Cf. Captain William D. Puleston "Strategy with a One-Ocean Navy," *Atlantic* (Boston), December 1940, pp. 707-11.

77. Representative Vinson, *Congressional Record*, January 21, 1941, p. 235; Senator Walsh, *ibid.*, March 8, 1941.

78. It may be doubted that the American public would be willing to do this.

The May 15 issue of FOREIGN POLICY REPORTS will be

PLANS FOR POST-WAR RECONSTRUCTION

by Vera Micheles Dean